



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/554,714

11/06/2006

John William Newton

49643.0193

9523

20322 7590 11/18/2008
SNELL & WILMER L.L.P. (Main)
400 EAST VAN BUREN
ONE ARIZONA CENTER
PHOENIX, AZ 85004-2202

EXAMINER

GREGORY, BERNARR E

ART UNIT

PAPER NUMBER

3662

MAIL DATE

DELIVERY MODE

11/18/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|---------------------------------------|---|--|
| Office Action Summary | Application No. 10/554,714 | Applicant(s) NEWTON, JOHN WILLIAM | |
| | Examiner Bernarr E. Gregory | Art Unit 3662 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7, 11, 13, 19, 22-25, 29-38, 42, 44, 50, 53-56, 60, 61 and 63-66 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 11, 13, 19, 22-25, 29-38, 42, 44, 50, 53-56, 60, 61 and 63-66 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>10/28/2005</u> . | 6) <input type="checkbox"/> Other: ____. |

1. The Specification is hereby objected to due to the presence of extraneous matter, which must be deleted. Claims may not be discussed in the text of the Specification. Correction is hereby **required**.

On lines 14-15 of page 3 of the Specification, the phrase, "The system may include the features of any one or more of dependent claims 2 to 29" must be cancelled.

On lines 18-19 of page 5 of the Specification, the phrase, "The method may include the features of any one or more of dependent claims 32-59" must be cancelled.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-7, 11, 13, 19, 22-25, 29-38, 42, 44, 50, 53-56, 60, 61, and 63-66 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In independent claims 1 and 32 and in dependent claims 2 and 3 and 7 and elsewhere among the dependent claims, each and every use of the word "automated" is indefinite and unclear in context. Does this term merely mean that the action in question is performed by a mechanism?

On line 2 of independent claim 1, the phrase, "surfaces spaced apart along a main body section of the craft" is indefinite and unclear, particularly with

respect to the words "spaced apart along" in this context. Is this intended to mean that the "surfaces" are at different points along the major axis of the craft?

On lines 4-6 of dependent claim 2, the phrase, "with control to a predetermined angle of attack to maintain continuously at zero value under sustained manoeuvre through to target intercept at zero grazing incidence" is unclear in context.

In each of claims 1-3, the uses of "automated synchronized operation" is indefinite and unclear in context in that these uses seem to recite function without claiming structure to implement that function.

On line 4 of dependent claim 3, the phrase, "under the action of a control routine" is indefinite and unclear in context. Does this phrase mean that a computer running a "control routine" is performing the control?

Similarly, on lines 2-3 of dependent claim 4, the phrase, "under a control routine involving a soft actuation mechanism" is indefinite and unclear for substantially the same reason.

On line 3 of dependent claim 4, it is unclear in context what is meant by the term "soft actuation mechanism."

On lines 4-5 of dependent claim 13, the use of parenthetical matter makes the claim language indefinite and unclear in that it can not be readily ascertained if or how the parenthetical matter modifies the claim language. If the parenthetical matter is to remain in order to modify the claim language, then the parentheses must be replaced with commas.

The uses of the shorthand “and/or” in claims 30 and 61 are indefinite and unclear in context due to the use of shorthand. Claims must be written in the English language, not in shorthand.

On line 4 of dependent claim 44, the use of parenthetical matter makes the claim language indefinite and unclear in that it can not be readily ascertained if or how the parenthetical matter modifies the claim language. If the parenthetical matter is to remain in order to modify the claim language, then the parentheses must be replaced with commas.

Dependent claim 66 is indefinite and unclear in that it is not clear into what statutory class of invention the claimed subject matter falls. It appears that the claim may have been intended to claim a method of "distribution," but the claim fails to recite even a single positive method step.

Dependent claims 33-38, 42, 44, 50, 53-56, 60, 61, 63, and 64 are unclear in that they depend from cancelled claim 18, and have not been further treated on the merits.

Dependent claims 65 and 66 are unclear in that they depend from claim 35 which in turn depends from cancelled claim 18. Claims 65 and 66 have not been further treated on the merits.

On line 1 of dependent claim 63, the use of the term “loadable” is indefinite and unclear in context in that it fails to claim the loading of the “computer program” clearly and definitely. The same problem occurs with the use of the word “loadable” on line 1 of dependent claim 64.

On line 1 of dependent claim 65, the verb "may comprise" makes the claim indefinite and unclear in that the verb expresses potential rather than stating clearly and definitely that the "carrier" actually comprises "electronic signals."

Dependent claims 2-7, 11, 13, 19, 22-25, and 29-31 are unclear at least in that they depend from unclear independent claim 1.

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 63-66 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 63 is directed to non-statutory subject matter under 35 USC 101 in that it attempts to claim a "computer program" product apart from that "computer program" residing on a computer-readable medium. Please see MPEP 2106.01.

Claim 64 is directed to non-statutory subject matter under 35 USC 101 in that it attempts to claim a "computer program" product apart from that "computer program" residing on a computer-readable medium. Please see MPEP 2106.01.

Claim 65 is directed to non-statutory subject matter in that it fails to fall into one of the statutory categories of invention under 35 USC 101 (machine, manufacture, process, or composition of matter). A "carrier" is merely a signal, and can not be a machine or a manufacture or a composition of matter in that a signal is not material.

Art Unit: 3662

Further, a signal can not be a process in that it contains no executable intelligence to perform a useful function. Please see MPEP 2106 and MPEP 2106.01.

Insofar as dependent claim 66 may be understood, it is directed to non-statutory subject matter in that it is directed to a computer program apart from that program residing on a computer-readable medium or, alternatively, it does not clearly set forth one of the statutory categories of invention.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 23, and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Schroeder ('331) or Schroeder ('830).

Claim 1 is anticipated by either of the applied references in that the two competitive wing control surfaces are operated in a synchronized fashion as claimed. In Schroeder ('331), see, for example, column 4, lines 31-58, and, in Schroeder ('830), see, for example, column 4, lines 17-45.

With respect to the further limitations of dependent claim 23, please note that each of the applied references is directed to a "missile" as claimed.

With respect to the further limitations of dependent claim 25, please note that each of the applied references is directed to a missile, which would inherently be "unmanned" as claimed.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schroeder ('331) or Schroeder ('830).

One of ordinary skill-in-the-art would be a person having a graduate-level degree in some form of Engineering or in Physics with several years of practical experience in the design and/or testing of guided weapons.

With respect to the further limitations of dependent claims 22 and 24, although neither of the applied references mentions the use of the invention in a "marine craft" (claim 22) or in a "torpedo" (claim 24), it would have been obvious to one of ordinary skill-in-the-art that principles and equipment used to guide a missile through the fluid medium of air could likewise be used to guide a missile-like device through the fluid medium of water, the two being quite analogous. It is noted here that a "marine craft" (claim 22) can be read broadly as a "torpedo."

Art Unit: 3662

9. Due to the lack of clarity of all of the pending claims, it is not possible to indicate potential allowable subject matter at this time.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The examiner-cited prior art that has not been applied above is of general interest for showing the state of the related prior art.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bernarr E. Gregory whose telephone number is (571) 272-6972. The examiner can normally be reached on weekdays from 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas H. Tarcza, can be reached on (571) 272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

Art Unit: 3662

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Bernarr E. Gregory/
Primary Examiner, Art Unit 3662